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Silverbrook

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(54) **HANDHELD IMAGING DEVICE INCORPORATING MULTI-CORE IMAGE PROCESSOR**

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(58) **Field of Classification Search**
None
See application file for complete search history.

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(57) **ABSTRACT**

A handheld imaging device includes an image sensor for sensing an image; a processor for processing the sensed image; a plurality of processing units provided in the processor, the plurality of processing units connected in parallel by a crossbar switch to form a multi-core processing unit for the processor; and an image sensor interface for converting signals from the image sensor to a format readable by the plurality of processing units, the image sensor interface sharing a wafer substrate with the processor. A transfer of data from the image sensor interface to the plurality of processing units is conducted entirely on the shared wafer substrate.

18 Claims, 149 Drawing Sheets